

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

CARRIER CORPORATION,)	
)	
Plaintiff,)	
)	
v.)	C.A. NO. 12-930-SLR
)	
GOODMAN GLOBAL, INC., GOODMAN)	
MANUFACTURING COMPANY, LP.,)	
GOODMAN GLOBAL HOLDINGS, INC.,)	
GOODMAN DISTRIBUTION, INC., and)	
GOODMAN SALES COMPANY)	
)	
Defendants.)	
)	
GOODMAN MANUFACTURING)	
COMPANY, L.P., and GOODMAN)	
DISTRIBUTION, INC.,)	
)	
Counterclaim Plaintiffs,)	
)	
vs.)	
)	
CARRIER CORPORATION,)	
)	
Counterclaim Defendant.)	

CARRIER CORPORATION'S OPENING BRIEF IN SUPPORT OF INJUNCTION

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I. INTRODUCTION

This litigation has been a tale of how two very different companies launched self-configuring residential HVAC systems using very different tactics. Carrier used innovation. Goodman used infringement. Carrier has now been forced to compete with its own cutting-edge technology, as Goodman employs that same technology to sell HVAC systems head-to-head against Carrier. Undaunted by the jury's patent infringement verdict in this case, Goodman has even expanded its infringement-based strategy since that verdict was rendered. The significant, unquantifiable and irreversible harm to Carrier's sales, market share, business opportunities and reputation strongly support an injunction against further infringement by Goodman. And the story of how Carrier and Goodman got to this place in the market compels it.

Carrier's founder, Willis Carrier, is well recognized as the inventor of modern air conditioning. Carrier has built upon this legacy, investing significantly in research and development (R&D) and cultivating a strong reputation for innovation to differentiate itself from the competition. Before 2004, premium HVAC systems had become so difficult to install and configure correctly that many HVAC dealers wouldn't sell them. Carrier invested in solving that problem. Engineers at Carrier invented a way for these systems to configure themselves automatically. The Patent Office issued U.S. Patent No. 7,243,004 to Carrier for this invention, and Carrier incorporated the technology in its Infinity System. PTX1 (the "'004 patent"). The invention was hailed as "game-changing" technology that left installers in "awe." Clark Trial Tr. 774:15-19; PTX629. As a result of the invention, Carrier enjoyed rapid growth in sales of premium systems, was able to recruit new dealers for premium systems who previously wouldn't sell them, and used the technology to once more remind the industry that Carrier is the industry's leading innovator.

Goodman directly competes with Carrier, using a very different philosophy. Goodman strives to avoid R&D costs and focuses on providing HVAC equipment at “very, very low cost.” Clark Trial Tr. 697:6-14. Following Carrier’s launch of its Infinity System, Goodman saw an opportunity to move into premium products by offering a self-configuration feature. In 2009 Goodman launched that technology in its ComfortNet System, which the jury in this case found to infringe valid claims of Carrier’s ‘004 patent. According to Goodman’s internal documents, “the big benefit[] to Goodman with this control system is it elevates our positive brand image allowing us to obtain dealers we couldn’t previously approach.” PTX38 at GOODMAN-CAR00113002. Goodman also knew ComfortNet “will turn the tables on the competition because it allows us to get into their backyard and take away high end business.” *Id.* Goodman’s goal was clear: to compete with Carrier, take its high-end customers, and take a piece of Carrier’s reputation for innovation. Put in terms of the present motion, Goodman’s goal was to harm Carrier irreparably. *Douglas Dynamics, LLC v. Buyers Prods. Co.*, 717 F.3d 1336, 1344 (Fed. Cir. 2013) (“Irreparable injury encompasses different types of losses that are often difficult to quantify, including lost sales and erosion in reputation and brand distinction.”).

Goodman achieved that goal, and even after the jury’s verdict Goodman continues to expand its infringing ComfortNet line, further compounding the irreparable harm to Carrier. That harm can never be fully compensated by damages, and Carrier therefore requests a permanent injunction.

II. NATURE AND STAGE OF THE PROCEEDINGS

A. Stage of the litigation.

Carrier filed this suit on July 19, 2012, alleging that Goodman’s ComfortNet communicating HVAC systems infringe United States Patent No. 7,243,004 and United States Patent No. 7,775,452 (the ‘452 patent). D.I. 1. The Court’s scheduling order bifurcated damages

and willfulness from the liability phase of the case. D.I. 27. On May 22, 2014, Carrier and Goodman stipulated to dismissal of the ‘452 patent with prejudice. D.I. 273. On August 14, 2014, the Court issued summary judgment and Markman opinions. D.I. 315, 316. The Court held a 5-day jury trial on liability beginning September 8, 2014. On September 15, 2014, the jury returned a verdict finding that ComfortNet Systems using a ComfortNet CTK01, CTK02, or CTK03 thermostat directly infringe claims 6, 8, and 13 of Carrier’s ‘004 patent; that Goodman induced infringement of those three claims; and that Goodman failed on its invalidity defenses. D.I. 383. The Court entered judgment consistent with that verdict on September 17, 2014. D.I. 390. On September 30, 2014 the Court entered a scheduling order for post-trial briefing. D.I. 391.¹

B. Status of pending reexamination.

The ‘004 patent is also involved in an inter partes reexamination at the Patent Office, which Goodman requested and sets up a “race” to final judgment with the jury’s infringement and no-invalidity verdicts in this litigation. The timing may be too close to call. But given Goodman’s recent expansion of its ComfortNet line despite the jury’s infringement verdict in this case, Goodman is clearly banking on a faster (and more favorable) outcome at the PTO—or at least on maximizing the monetary and intangible market benefits available from using Carrier’s technology for several more years in the interim.

¹ For the reasons set forth in Carrier’s October 20th response to Goodman’s October 20th request to strike Carrier’s motion for an injunction, the Federal Circuit does not have jurisdiction over an appeal from the jury’s liability verdict until the Court addresses Carrier’s motion for an injunction. Carrier has the burden on its motion for an injunction, and the record already developed sufficiently (indeed, very strongly) supports an injunction. Thus, Carrier’s September 29th email to the Court regarding the post-trial briefing schedule noted that the proposed post-trial briefing schedule included briefing on Carrier’s injunction motion.

The initial examiner in the reexamination rejected claims 6 and 13 as anticipated and rejected claim 8 as obvious. Those rejections are based on misinterpretations of patent law and prior art (the same prior art that was also at issue in this litigation). Briefing to the Patent Trials and Appeals Board (“PTAB”) on those issues begins in December 2014, but a decision from the PTAB is years away. After the PTAB’s decision there will either be a remand to the examiner or an appeal to the Federal Circuit. In light of that timeline, a final decision in the reexamination is likely several years away.

Because the issues of liability and damages are bifurcated in this case, and accounting for the likely appeals from Goodman at both stages, a final judgment ending this litigation is also several years away. The timing for the two proceedings reaching finality is critical to the effect of this litigation. Upon a final decision in this litigation that Goodman failed to meet its burden on invalidity, the pre-AIA version of 35 U.S.C. §317(b) would require the PTO to terminate the reexamination, leaving all claims valid as issued. *Bettcher Indus., Inc. v. Bunzl USA, Inc.*, 661 F.3d 629, 646 (Fed. Cir. 2011) (“[Section 317(b)] prevents further reexamination proceedings once parallel federal court proceedings have reached their resolution.”).

Goodman would rather the reexamination finish first, and for good reason. Goodman used this Court’s protective order to block the PTO from seeing evidence that undermined Goodman’s invalidity arguments to the PTO. Goodman is using this incomplete record for its advantage at the PTO, an advantage not available to Goodman on the complete record before this Court.² If the reexamination finishes first and Goodman keeps the examiner’s current rejections

² As Carrier explained in previous filings to this Court, the PTO examiner who rejected claims 6, 8, and 13 did not have the same record the jury saw in this litigation, especially regarding secondary considerations of non-obviousness. D.I. 134; D.I. 208. That is because Goodman relied on this Court’s protective order to prevent Carrier from submitting documents and testimony Goodman marked confidential in this litigation. Some of that evidence belies Goodman’s positions and statements in the reexamination. For instance, Goodman took the position during reexamination that the patented invention was not a commercial success. *Id.*

intact, this could mean that the years of work in this litigation by the parties, the Court, and a jury would give way to a PTO decision based on an incomplete record.

The jury in this litigation had before it the complete record developed through two years of litigation and a 5-day trial. Based on that record, it found that Goodman has infringed and has failed to prove the asserted claims of the '004 patent invalid. Carrier asks this Court to give effect to that finding, and to enter an injunction now, which the Court is authorized to do.³ The existence of a pending reexamination should not be a license for Goodman to ignore a jury verdict and continue—and even escalate—its infringement of Carrier's patent rights. *See Inventio AG v. Otis Elevator Co.*, 2011 WL 3480946, at *3 (S.D.N.Y. Aug. 4, 2011) (“Until such time as the PTO renders a final decision [in the pending reexaminations], this court has a jury verdict, supported by evidence, to uphold and give effect to; and until final PTO action the vindication of the patent system outweighs any other equitable consideration. I shall, therefore, enter an injunction in Inventio's favor.”), *vacated on other grounds*, 497 F. App'x 37 (Fed. Cir. 2012).

III. STATEMENT OF FACTS

A. Carrier invests in innovation to differentiate itself from competitors.

Ever since Willis Carrier's invention of the air conditioner, the name Carrier has been “synonymous with innovation” in the HVAC industry. PTX513, at CARR-GGI0018906;

But as Carrier learned in discovery, Goodman launched its ComfortNet product to compete with Carrier's commercial embodiment of the invention (the Infinity System) precisely because Goodman knew the Infinity was a huge success. Indeed, Goodman's internal documents expressly note that the Infinity System was a “commercial success.” PTX29 at GOODMAN-CAR00016504.

³ Regarding the reexamination, all claims in the '004 patent are valid and enforceable unless and until the reexamination process reaches finality rejecting the claims, meaning all appeal rights have been exhausted or lapsed. *Fresenius USA, Inc. v. Baxter Int'l, Inc.*, 721 F.3d 1330, 1344–46 (Fed. Cir. 2013) (recognizing that reexamination decisions are not “final” until the patent owner has exhausted all avenues of appeal, including appeal to the Federal Circuit), *cert. denied*, 134 S. Ct. 2295 (2014).

Meyers Trial Tr. 189:11-21. According to Carrier's Vice President of Sales and Distribution (David Meyers), maintaining that reputation for innovation is vital to Carrier's business because it is "how we differentiate ourselves from the competition." Meyers Trial Tr. 190:15-20; Shah Trial Tr. 262:6-9. Goodman's economics expert (Dr. Seth Kaplan) agreed that Carrier is considered a "leader in the HVAC market" and that that strong reputation helps drive sales for Carrier. Kaplan Trial Tr. 1260:21-1261:15; 1285:19-21; Ex. 1, Kaplan Dep. Tr. 147:11-148:4.⁴ Goodman itself refers to Carrier's technology as the "gold standard." Ex. 2, Fisher Dep. Tr. 347:25-348:17.

To maintain that reputation, Carrier invests hundreds of millions in R&D and employs over 1,700 engineers, people who are carefully selected and trained to be "the best and brightest in the engineering community." Meyers Trial Tr. 190:21-191:7. As Mr. Meyers explained, Carrier employees "pride ourselves on being first to market," and each new innovation reinforces Carrier's motto: "turn to the experts." Meyers Trial Tr. 189:22-190:5; *id.* at 190:15-20 (innovation is "core to who we are and part of our DNA"). The other important investment Carrier makes to maintain its reputation for innovation and its position as a market leader is investing in patent protection. Shah Trial Tr. 262:6-11.

B. Goodman competes with Carrier by selling "cheap cold air."

Goodman considers itself to be "Carrier's biggest competition" in the HVAC market, but Goodman competes using a very different philosophy than Carrier. Ex. 2, Fisher Dep. Tr. 333:18-334:3. Goodman's "philosophy from the very beginning that continues to this day" is to sell HVAC equipment at "very, very low cost." Clark Trial Tr. 697:6-14. Goodman's slogan is

⁴ Unless otherwise noted, all Exhibits are attached to the Declaration of Sean M. McEldowney in Support of Carrier Corporation's Opening Brief in Support of Injunction. Admitted trial exhibits and testimony are not attached hereto as Exhibits.

“cheap cold air,” which it touts as meaning “we didn’t invent the technology -- we made it simple and affordable.” PTX37 at GOODMAN-CAR00214335.

Goodman accomplishes this objective by doing virtually no R&D and “keep[ing] our engineering department as lean as possible.” Clark Trial Tr. 697:4-698:25; Notaro Trial Tr. 854:23-855:9 (noting Goodman would have only three engineers available if it wanted to design an HVAC system). According to Goodman’s Vice President of Marketing (Gary Clark), this approach “keeps [Goodman] from having to hire experts and have the overhead and people running around, you know, with that expertise.” Clark Trial Tr. 698:5-7. As a result of this strategy, Goodman’s strength historically was in the low efficiency, value segment of the market. PTX33 at GOODMAN-CAR00016863 (“Goodman currently dominates the 13 & 14 SEER A/C and heat pump market place with approximately 20% market share.”); Ex. 3, Cantrell Dep. Tr. 241:3-8, 242:7-13.

C. Carrier invested in developing its patented self-configuring Infinity System to reinforce Carrier’s reputation for innovation and to help sell premium systems.

Research and development in the 1990s made many new features available for residential HVAC equipment, including variable speed fans, variable stage heating and cooling, and humidity control, to name just a few. Meyers Trial Tr. 194:18-196:3. Premium systems using these new features provided better comfort and higher efficiency, but installing and configuring these systems became more complicated with the addition of each new feature. ‘004 patent, 1:14-48; Shah Trial Tr. 257:22-258:20; Meyers Trial Tr. 196:4-198:23. Some installers were not capable of configuring these premium systems, and even the most capable installers sometimes configured them incorrectly. *Id.* This problem became a “barrier to selling premium systems,” as dealers were unwilling to sell systems they were not comfortable installing. Shah Trial Tr.

265:11-269:6; Meyers Trial Tr. 199:10-21; PTX352 at CARR-GGI0017482; PTX691 at GOODMAN-CAR00122830.

Carrier decided to invest in finding a solution to this problem, through a project codenamed “Excalibur.” PTX2 at CARR-GGI0018649; PTX352 at CARR-GGI0017469; PTX513 at CARR-GGI0018904. Carrier’s investment was motivated by the realization that developing (and patenting) an innovative solution would reinforce Carrier’s reputation for innovation; drive sales of highly profitable premium systems; and allow Carrier to recruit new dealers for its premium systems. PTX513 at CARR-GGI0018906. With respect to reputational benefits, Carrier recognized this project would provide an “innovation-based ‘halo’ effect for other Carrier products.” PTX2 at CARR-GGI0018654. With respect to sales and profits, Carrier noted this project would “provide the innovative, differentiated features necessary for [Carrier] to help preserve their margin position and increase their share of the premium market.” *Id.* at CARR-GGI0018650. And with respect to recruiting new dealers for premium systems, Carrier foresaw that the project would “extend the reach of premium products to contractors that are intimidated by the complexities of today’s systems.” *Id.* at CARR-GGI0018654.

Tasked with solving this problem, Carrier engineers Raj Shah and Jerry Ryan developed a novel way of having an HVAC system configure itself, which is the subject of Carrier’s ‘004 patent. ‘004 patent, 1:52-2:9. The same month that Carrier filed the patent application that later issued as the ‘004 patent, Carrier launched its Infinity System incorporating the innovative self-configuration that is claimed in the ‘004 patent.⁵ Shah Trial Tr. 255:18-24; *id.* at 259:7-9; *id.* at 307:16-310:10; Meyers Trial Tr. 199:22-25; Henze Trial Tr. 1166:4-1167:5. The Infinity launch

⁵ Since the Infinity launch, Carrier also launched the same patented technology under the brand name “Bryant Evolution.” Meyers Trial Tr. 201:3-9. For convenience, this brief refers to “Infinity” only, which for purposes of this brief should be understood to include Infinity and Evolution products.

focused largely on this self-configuration feature, which the industry considered to be “game-changing technology.” Clark Trial Tr. 774:15-19; Fisher Trial Tr. 400:11-16; Meyers Trial Tr. 205:22-206:15, 203:4-12, 203:24-204:5.

Following the Infinity’s launch, Carrier initially reaped the benefits it had predicted. The industry was once again reminded that Carrier is the technology leader in HVAC. For instance, industry press marveled that the Infinity System was “designed to configure itself.” PTX899 at CARR-GGI0046206. When Carrier showed this feature to installers and salespeople, “they just stood there in awe and watched as the system programmed itself.” PTX629 at CARR-GGI0195786.

The industry buzz was more than just hype. As Goodman admits, the Infinity’s self-configuration feature “increased the likelihood that a new system would be installed correctly.” Clark Trial Tr. 441:13-20. As a result, existing dealers for premium equipment were more willing to sell premium equipment because they were confident they could install and configure it correctly. Meyers Trial Tr. 200:1-12. The self-configuration feature also “brought dealer contractors who had never quoted premium systems [into Carrier’s] business because we had simplified the installation process so much.” *Id.* at 200:13-17. As one distributor explained, the Infinity’s “self-configuration feature ma[d]e it easier as a distributor to sell the highest-end HVAC equipment.” Vickers Trial Tr. 1235:16-1237:24. In this way, the self-configuration feature was an “enabling technology” that removed the barrier to selling premium “functions and features” and grew the market for premium systems. Shah Trial Tr. 272:13-273:25; Ex. 4, Blackburn Dep. Tr. 88:11-91:14.

The resulting growth in sales and profits from the Infinity System exceeded even Carrier’s expectations. Meyers Trial Tr. at 208:22-209:22. Within two weeks of the launch,

Carrier received so many orders that the product was already on backorder, and within just a few months Carrier had sold four times more Infinity controls than they had projected for the entire first year. PTX266 at CARR-GGI00166687; PTX626; Meyers Trial Tr. 209:14-212:7. Three years after the launch, the Infinity System accounted for 24% of the business's gross margin. Meyers Trial Tr. 224:7-225:12. Carrier had the only self-configuring system on the market, and that technology had created a "gap" that separated Carrier from its competitors. Meyers Trial Tr. 239:6-17, 252:1-4.

Ten years after the invention, Carrier's patented self-configuration feature is still a "foundational enabling technology," and it will continue to be long into the future. As inventor Raj Shah explained:

[S]ince our first launch, we have added new equipment and new features and new technologies. We have been adding that on an ongoing basis, and we certainly are not stopping now....[w]e are continuing to do new things and this enabling technology just makes it so easy for us to add more features and more technology and more equipment without creating the complexities that our installer has to face. *So it really is the foundation to the future.*

Shah Trial Tr. 311:11-24 (emphasis added). For example, one of the latest technologies in residential HVAC equipment is modulating capability. Carrier offers modulating furnaces and heat pumps as part of the self-configuring line of Infinity products, which avoids dealer concerns about this new technology adding complexity to the installation process. That helps sell the new technology to a wider range of installers (and therefore homeowners).⁶

⁶ Goodman offers a modulating furnace as part of its infringing, self-configuring ComfortNet line of products. Henze Trial Tr. 556:25-557:3. Goodman does not yet offer a modulating heat pump, although it is actively analyzing Carrier's. Ex. 5, Clark Dep. Tr. 93:3-94:8. The '004 patent makes these products easier to sell, an advantage Goodman should not be able to reap from Carrier's patent each time it launches a new feature or option.

D. Goodman watched the technical and commercial success of Carrier's Infinity System and set out to take the benefits Carrier had achieved.

In the early 2000s, Goodman was not considered a competitor for sales of premium systems. PTX2 at CARR-GGI0018650. Goodman knew premium systems were more profitable, but it also knew that dealers were reluctant to sell premium systems because they were difficult to install and configure. PTX14 at GOODMAN-CAR00138844; Clark Trial Tr. 422:20-24; 425:3-15; 435:25-436:4. Goodman recognized that "if we can make it easier for guys to install the high efficiency equipment, we'll sell more of it." Karl Trial Tr. 388:17-23. Carrier had already accomplished that with Infinity, and Goodman knew it was behind Carrier in the market. Fisher Trial Tr. 405:4-406:2. Goodman also knew that Carrier was "the only competitor for this type of system" and that "all indications from talking with Carrier dealers are that Infinity has been both a technical and commercial success." PTX29 at GOODMAN-CAR00016504.

Goodman wanted to compete with Infinity, so it launched a project "in response to the Carrier Infinity communicating system." PTX8 at GOODMAN-CAR00112175. The purpose of the project was to use self-configuration technology to boost Goodman's reputation for innovation; increase sales and profits in the premium market by taking sales away from Carrier; and open up new dealers to Goodman for premium systems:

- Goodman's Marketing Product Manager admitted that "one of [Goodman's] goals with the launch of ComfortNet was to take away high-end business from, including others, Carrier." Ex. 2, Fisher Dep. Tr. 355:14-19.
- "The big benefits to Goodman with this control system is it elevates our positive brand image allowing us to obtain dealers we couldn't previously approach....Another interesting dynamic of this launch is it will turn the tables on the competition because it allows us to get into their backyard and take away high end business while they're consumed with challenging our standard efficiency product." PTX38 at GOODMAN-CAR00113002; PTX37 at GOODMAN-CAR00214333 (similar).

- “The key to the entire project is to streamline dealer installation obligations” because that “will drive sales of premium equipment, increase profits and allow enhance [sic] the Goodman and Amana high efficiency image.” PTX8 at GOODMAN-CAR00112176.
- The “goal” of the project was “to drive sales of premium equipment boosting top line sales, profit, and the image of Goodman products especially with high-end dealers.” PTX29 at GOODMAN-CAR00016504.
- This project “allows us to” “obtain dealers where we couldn’t previously” and “expand positive brand image.” PTX37 at GOODMAN-CAR00214336-38.
- “The simplification of the more complex, high efficiency systems should provide a minimum 3% lift in equipment volume after the first full year,” which would translate to “a 5% increase in sales and a \$3.3 million dollar profit to the company.” PTX8 at GOODMAN-CAR00112174; *see also* Clark Trial Tr. 423:2-13 (Goodman was using auto-configuration to increase sales and profits).

Goodman also recognized that these benefits would extend long into the future, because self-configuration “provides a [sic] active platform for future product development.” PTX38 at GOODMAN-CAR00113002; Fisher Trial Tr. 406:16-407:16. For all these reasons, “Goodman’s ComfortNet system was being specifically designed to compete with Carrier’s Infinity System.” Clark Trial Tr. 456:9-16; PTX8 at GOODMAN-CAR00112174 (“This project will provide our dealer with the tools to compete against communicating systems aggressively offered by Carrier (Infinity System) [and other competitors].”).

E. Goodman is using Carrier’s patented technology to compete with Carrier.

Goodman accomplished what it set out to do. Goodman’s ComfortNet is “in direct competition with Carrier” because it is a “similar system” that “make[s] it easier for our dealers.” Ex. 2, Fisher Dep. Tr. 159:13-19; Ex. 1, Kaplan Dep. Tr. 50:4-8 (agreeing that “the Goodman ComfortNet System and Carrier Infinity system compete with one another”). Goodman competes with the Infinity System by emphasizing the self-configuration feature the jury found to infringe Carrier’s ‘004 patent. Clark Trial Tr. 439:15-22 (agreeing that “throughout the marketing of this product, [Goodman has] continually emphasized that the benefit of ComfortNet

is automatic configuration”); *id.* at 428:14-21 (discussing Goodman document noting that “the most important feature of this control is that it will take away the mystery and complication of installing a high-end system”); Fisher Trial Tr. 413:12-414:7 (agreeing Goodman ran ads “touting” auto-configuration for ComfortNet); *id.* at 396:16-397:1 (agreeing that auto-configuration was “the difference” between prior systems and the ComfortNet system); PTX15 (ComfortNet press release touting that the system “removes the necessity for complicated start-up configuration requirements”); PTX38 at GOODMAN-CAR00112991 (touting self-configuration). In fact, when customers ask Goodman about Carrier’s Infinity System, Goodman tells them “ComfortNet has similar features to the Infinity system.” Ex. 6, PTX114; *see also* Ex. 7, PTX183 (email noting that “when our [ComfortNet] system is launched it will enjoy the same feature set as the Carrier Infinity”).

And just as Goodman planned, ComfortNet’s infringing self-configuration feature has given Goodman the very benefits that were previously exclusive to Carrier as a result of the ‘004 patent. Immediately following its launch, [REDACTED]

[REDACTED] PTX61 at GOODMAN-CAR00112493; PTX917 at GOODMAN-CAR00134281-82. The launch set the high-water mark for Goodman’s share in the high efficiency market. PTX61 at GOODMAN-CAR00112494; PTX917 at GOODMAN-CAR00134281-82. Since launching the ComfortNet System, [REDACTED]

[REDACTED] Ex. 2, Fisher Dep. Tr. 166:18-21; Ex. 8, PTX573 (spreadsheet produced by Goodman showing ComfortNet revenue).

Goodman’s success comes at Carrier’s expense. Until Goodman came on the market, Carrier accounted for 100% of communicating controllers in the market. Ex. 1, Kaplan Dep. Tr.

258:8-259:16. While Goodman's launch set the high-water mark for Goodman's share of the high efficiency market, that same period was the first time that Infinity sales decreased. PTX624. Goodman's ComfortNet System was taking premium system sales away from Carrier. Ex. 4, Blackburn Dep. Tr. 237:1-17 (explaining that in 2009 Infinity's growth was impacted by Goodman and others entering the market with competing products); Meyers Trial Tr. 239:6-17 (noting that around 2009 competitors "were starting to close the gap that we had created in the market"); *id.* at 251:24-253:4 (similar). As a Senior Product Manager from Goodman explained, "it is really the [ComfortNet System] that we're using to gain high efficiency and high end market share." Karl Trial Tr. at 386:7-14. The only bid document Goodman produced in this litigation is one offering 78 ComfortNet systems to a contractor for an apartment complex in Maryland. Ex. 9, PTX289.⁷ The bid is attached to an email noting that the project is one "we can take for carrier!!" *Id.*

F. Goodman is competing on price using Carrier's patented technology.

Not only is Goodman using Carrier's patented technology to compete with Carrier, Goodman is competing by trying to underprice Carrier. Goodman uses that strategy while flaunting the fact that Goodman, unlike Carrier, did not have to invest in the R&D costs necessary to innovate. Goodman tells distributors and installers that Carrier's price "reflects" that Carrier's technology is the "gold standard." PTX38 at GOODMAN-CAR00113031; Ex. 2, Fisher Dep. Tr. 347:25-348:17. Meanwhile ComfortNet, according to Goodman, "mimics the long-term Goodman philosophy 'we didn't invent the technology -- we made it simple and affordable.'" PTX37 at GOODMAN-CAR00214335; [REDACTED]

[REDACTED]

⁷ As a result of bifurcation, Goodman has not produced invoices, bids, and other financial and sales documents.

G. Carrier filed this suit to protect its innovation.

Given the importance of innovation to Carrier's business strategy, "it has always been important to Carrier to protect patents." Shah Trial Tr. 298:24-299:2. Patent protection was "especially" important in the Excalibur project since there was "a lot of innovation going on" in that project. Shah Trial Tr. 298:13-299:10; PTX47 (tracking patent protection status for Excalibur project); Ryan Trial Tr. 847:3-22 ("We had premium products that Carrier sold and that were profitable, and we wanted to keep them exclusive and wanted to keep them totally Carrier."). And rather than inviting competitors like Goodman to make Infinity-compatible equipment, the Infinity System works exclusively with Carrier products. Shah Trial Tr. 336:5-21. Carrier filed this suit to protect its R&D investment, its reputation as the industry's leading innovator, and the other benefits stemming from the innovation embodied in the '004 patent. Meyers Trial Tr. 234:19-21.

H. Goodman continues to expand its ComfortNet line despite the jury's verdict.

Goodman's exploitation of Carrier's patent continues to expand even *after* the jury's verdict in this case. At trial last month, Goodman's Vice President of Marketing testified (carefully, it seems) that there was no CTK04 product "commercialized as of yet." Clark Trial Tr. 491:21-25. Following trial, Carrier found documents on the internet showing that Goodman is now offering a CTK04 that is "interchangeable" with the CTK03, which the jury found to infringe. Ex. 13 (describing "CTK03/CTK04 ComfortNet Communicating Control").

Goodman also now appears to be manufacturing ComfortNet equipment for its parent to sell. During the course of this litigation, Daikin Industries, Ltd. acquired Goodman. Daikin has annual revenue of more than \$11 billion and claims to be "the number one commercial HVAC manufacturer in the world." Ex. 14, Goodman Press Release. Historically Daikin had no presence in the mainstream U.S. residential HVAC market (which is dominated by ducted

systems). Ex. 15, Daikin Press Release (“North America is the largest global HVAC market and most systems in this market are ducted-style, a segment where we have little presence.”). The key strategic reason for the acquisition was to “allow Daikin to enter the mainstream ducted-type residential unitary segment in North America.” *Id.* Goodman never disclosed any Daikin-branded ComfortNet products during discovery in this case, but as of September 2014 it appears Goodman is making a broad mix of ComfortNet equipment that is being sold under the Daikin brand name, using the same self-configuration feature the jury found to infringe. Ex. 16 (Daikin consumer brochure for ComfortNet modulating furnace, dated 9/14); *see also* Ex. 17 (Daikin website accessed October 13, 2014 touting auto-configuration of its ComfortNet products).

IV. ARGUMENT

A. Legal standard for entry of a permanent injunction after *eBay*.

“The essential attribute of a patent grant is that it provides a right to exclude competitors from infringing the patent.” *Acumed LLC v. Stryker Corp.*, 551 F.3d 1323, 1328 (Fed. Cir. 2008). “Without the right to obtain an injunction, the right to exclude granted to the patentee would only have a fraction of the value it was intended to have, and would no longer be as great an incentive to engage in the toils of scientific and technological research.” *Honeywell Int’l, Inc. v. Universal Avionics Sys. Corp.*, 397 F. Supp. 2d 537, 547 (D. Del. 2005) (citation omitted). As such, the Patent Act provides courts the power to protect the patentee’s right to exclude by granting injunctive relief, specifying that courts “may grant injunctions in accordance with the principles of equity to prevent the violation of any right secured by patent.” 35 U.S.C. § 283.

The Supreme Court addressed and confirmed the long-standing test for the entry of permanent injunctions in patent cases in *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006). The *eBay* Court reaffirmed that an injunction requires the patentee showing:

- (1) that it has suffered an irreparable injury;
- (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury;
- (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and
- (4) that the public interest would not be disserved by a permanent injunction.

Id. at 391.

Chief Justice Roberts, writing in concurrence in *eBay*, explained that the Court’s opinion did not signify “a major departure from the long tradition of equity practice” or that district courts were now “writing on an entirely clean slate.” *Id.* at 395. He emphasized that “[f]rom at least the early 19th century, courts have granted injunctive relief upon a finding of infringement in the vast majority of patent cases,” a tradition “not surprising, given the difficulty of protecting a right to *exclude* through monetary remedies that allow an infringer to *use* an invention against the patentee’s wishes.” *Id.* (emphasis in original) In this regard, and in keeping with the principle that like cases should be decided alike, Justice Roberts noted that “a page of history is worth a volume of logic” in applying the traditional principles of equity to grant injunctions when patent infringement is found. *Id.*

Agreeing, Justice Kennedy also in concurrence went further to circumscribe the two scenarios where the equities may balance against an injunction. First, an injunction may be unwarranted when it serves as nothing but “a bargaining tool to charge exorbitant fees to companies that seek to buy licenses to practice the patent.” *Id.* at 396. That is, a company using a patent “not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees,” will rarely prove that a remedy at law is inadequate. *Id.* Second, “[w]hen the patented invention is but a small component of the product the companies seek to produce and

the threat of an injunction is employed simply for undue leverage in negotiations, legal damages may well be sufficient...and an injunction may not serve the public interest.” *Id.* at 396-97.⁸

In applying the holding and reasoning from *eBay*, the Federal Circuit has noted that “the courts have a long history of remedying trespass on property rights—including patent rights—by removing the trespasser.” *Broadcom Corp. v. Emulex Corp.*, 732 F.3d 1325, 1338 (Fed. Cir. 2013). “Patent property rights are especially difficult to protect with solely monetary relief because a calculating infringer may thus decide to risk a delayed payment to obtain use of valuable property without the owner’s permission.” *Id.* “This wisdom is particularly apt in traditional cases, such as this, where the patentee and the adjudged infringer both practice the patented technology.” *Robert Bosch LLC v. Pylon Mfg. Corp.*, 659 F.3d 1142, 1150 (Fed. Cir. 2011). Thus, “courts awarding permanent injunctions typically do so under circumstances in which the plaintiff practices its invention and is a direct market competitor.” *Invista N. Am. S.A.R.L. v. M&G USA Corp.*, -- F. Supp. 2d --, 2014 WL 1292223, at *15-17 (D. Del. Mar. 31, 2014); *Becton Dickinson & Co. v. Tyco Healthcare Grp. LP*, 2008 WL 4745882, at *3 (D. Del. Oct. 29, 2008) (same). This case epitomizes the circumstances calling for injunctive relief as authorized by the statute and as recognized by precedent.

B. Carrier has suffered and will continue to suffer irreparable harm.

Carrier has and will continue to suffer irreparable harm as long as Goodman is infringing, and that harm strongly supports a permanent injunction. “Irreparable injury encompasses different types of losses that are often difficult to quantify, including lost sales and erosion in

⁸ Regarding the Supreme Court’s reasoning in *eBay*, then-Judge Farnan once noted that “unless you fall under Justice Kennedy’s patent rule exception [to injunctions], you’re kind of dead meat in the Federal Courts” once found to infringe. Ex. 18, *B. Braun Melsungen AG v. Terumo Med. Corp.*, No. 1:09-CV-00347 (D. Del.), 7/8/2009 Initial Scheduling Conf. Tr. (D.I. 16) at 20.

reputation and brand distinction.” *Douglas Dynamics*, 717 F.3d at 1344. “Where two companies are in competition against one another, the patentee suffers the harm—often irreparable—of being forced to compete against products that incorporate and infringe its own patented inventions.” *Id.* at 1345.⁹

Goodman’s ComfortNet System competes directly with Carrier’s Infinity System. Goodman’s explicit goal in pursuing its ComfortNet project was to take sales, market share, business opportunities, and reputation away from Carrier. Goodman accomplished that goal. Each of these injuries is sufficient to show irreparable harm under Federal Circuit precedent. Even after the jury’s verdict of infringement, Goodman continues to expand its infringing line of products, compounding these injuries to Carrier. In addition to taking sales, market share, business opportunities, and reputation, Goodman is also forcing Carrier to compete on price with its own patented technology, which is yet another indication of irreparable harm under Federal Circuit precedent. Under these circumstances, Carrier has been and will continue to be irreparably harmed unless Goodman is enjoined.

1. Goodman is diminishing Carrier’s reputation as the industry’s leading innovator Carrier’s goodwill from the Infinity System.

The Federal Circuit recently made clear that an infringer causes irreparable harm when it diminishes a patentee’s reputation as an innovator. *Douglas Dynamics*, 717 F.3d at 1344-45. In

⁹ See also *Versata Software Inc. v. SAP Am., Inc.*, 2011 WL 4017944, at *2 (E.D. Tex. Sept. 9, 2011) (“The best case for obtaining a permanent injunction often occurs when the plaintiff and defendant are competing in the same market. In that context, the harm in allowing the defendant to continue infringing is the greatest. This Court has recognized the high value of intellectual property when it is asserted against a direct competitor in the plaintiff’s market.”), *aff’d in part, vacated in part on other grounds*, 717 F.3d 1255, 1269 (Fed. Cir. 2013); *Extreme Networks, Inc. v. Enterasys Networks, Inc.*, 2008 WL 4756498, at *2 (W.D. Wis. Oct. 29, 2008) (“A plaintiff is harmed when defendant sells directly competing products....[I]ts reputation and market share are at stake.”) (emphasis in original), *vacated and remanded on other grounds*, 395 F. App’x 709 (Fed. Cir. 2010).

Douglas Dynamics, the district court denied an injunction where “[the patentee] failed to show that it was losing sales or market share to [the infringer].” *Id.* at 1344. The Federal Circuit reversed and instructed the district court to enter an injunction because the patentee had nonetheless suffered “erosion of reputation and brand distinction.” *Id.* at 1344, 1346.

Using an analogy involving luxury Mercedes vehicles, the court in *Douglas Dynamics* explained that if competitors were allowed to capitalize on a patented Mercedes feature, “Mercedes would lose some of its distinctiveness and market lure because competitors could contend they had ‘similar features’ without noting that those features infringe Mercedes’s proprietary technologies.” *Id.* at 1344. The court noted that “the record shows that Douglas dedicates significant amounts of time and money towards marketing and sales, engineering, and research and development,” and “has earned itself a reputation in the marketplace as an innovator.” *Id.* In light of that, the Federal Circuit concluded that “Douglas’s reputation as an innovator will certainly be damaged if customers found the same ‘innovations’ appearing in competitor’s [products].” *Id.* at 1344-45. The court also reasoned that “Douglas’s reputation would be damaged if its dealers and distributors believed it did not enforce its intellectual property rights.” *Id.* at 1345.

Founded by the inventor of modern air conditioning, Carrier has a long history of innovation. Meyers Trial Tr. 189:11-21. Just as in *Douglas Dynamics*, Carrier dedicates significant time and money to cultivating its reputation as an innovator in the HVAC industry. Carrier invests hundreds of millions of dollars in R&D, and employs over 1,700 engineers. Meyers Trial Tr. 190:21-191:7. Carrier employees “pride ourselves on being the first to market,” which reinforces Carrier’s motto: “turn to the experts.” Meyers Trial Tr. 189:22-190:5; *id.* at 190:15-20 (innovation is “core to who we are and part of our DNA”). As a result of these

efforts, the name Carrier is “synonymous with innovation” in the HVAC industry. PTX513 at CARR-GGI0018906; Meyers Trial Tr. 189:11-21. That reputation for innovation is vital to Carrier’s business because it is “how we differentiate ourselves from the competition.” Meyers Trial Tr. 190:15-20; Shah Trial Tr. 262:6-9. Goodman’s economics expert agreed that Carrier is considered a “leader in the HVAC market” and that its strong reputation helps drive sales for Carrier. Kaplan Trial Tr. 1260:21-1261:15; 1285:19-21; Ex. 1, Kaplan Dep. Tr. 147:11-148:4. Goodman itself refers to Carrier’s technology as the “gold standard.” Ex. 2, Fisher Dep. Tr. 347:25-348:17.

And just as the Federal Circuit explained that “Mercedes would lose some of its distinctiveness and market lure [if] competitors could contend they had ‘similar features’” to Mercedes’s patented features, Carrier loses some of its distinctiveness when Goodman tells customers that “ComfortNet has similar features to the Infinity system.” Ex. 6, PTX114; *see also* Ex. 7, PTX183 (email noting that “when our [ComfortNet] system is launched it will enjoy the same feature set as the Carrier Infinity”). Carrier’s reputation as an innovator has been and will continue to be damaged as long as customers find Carrier’s self-configuration innovation in Goodman’s products. *Douglas Dynamics*, 717 F.3d at 1344-45. Moreover, the lure of becoming a Carrier dealer or distributor would certainly diminish if the industry believed Carrier did not enforce its intellectual property rights that protect Carrier’s innovative technologies. *Id.* at 1345. District courts, including in this District, recognize the importance of protecting an innovator’s reputation when it comes to granting injunctions. *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 2014 WL 2960035, at *1-2 (D. Del. June 30, 2014) (granting

injunction and finding irreparable harm based, in part, on the fact that patentee “has been repeatedly praised and recognized as an innovator in its market”).¹⁰

In addition to depending on its reputation for innovation to distinguish itself in the market, Carrier specifically depends on the ‘004 patented innovation to distinguish the Infinity System from competitors’ products. Carrier’s motivation for developing a self-configuring system was partly to “provide the innovative, differentiated features necessary for [Carrier] to help preserve their margin position and increase their share of the premium market.” PTX2 at CARR-GGI0018650. Carrier knew that doing so would also provide an “innovation-based ‘halo’ effect for other Carrier products.” *Id.* at CARR-GGI0018654.

The Infinity launch thus focused largely on this self-configuration feature, and the industry considered it to be “game-changing” technology. Clark Trial Tr. 774:15-19; Fisher Trial Tr. 400:11-16; Meyers Trial Tr. 205:22-206:15, 203:4-12, 203:24-204:5. Industry press marveled that the Infinity System was “designed to configure itself.” PTX899. Installers and salespeople “just stood there in awe and watched as the system programmed itself.” PTX629 at CARR-GGI0195786.

Goodman is now using Carrier’s patented technology to gain the same reputational boost for its ComfortNet System, which diminishes the distinctiveness of the technology in Carrier’s

¹⁰ See also *TruePosition Inc. v. Andrew Corp.*, 568 F. Supp. 2d 500, 532 (D. Del. 2008) (“Defendant has taken from plaintiff not only this important business, but the recognition of being a technology innovator and the first global supplier of the patented technology, and an unquantifiable amount of business opportunities flowing therefrom. Such harms are not compensable in damages.”), *motion for entry of final injunction granted by*, 611 F. Supp. 2d 400 (D. Del. 2009); *S. Snow Mfg. Co. v. SnoWizard Holdings, Inc.*, 2014 WL 1652436, at *6-7 (E.D. La. Apr. 24, 2014) (finding irreparable harm: “SnoWizard has not provided evidence of the kind of loss in market share that was at issue in *Robert Bosch*....[T]he infringement nonetheless damaged SnoWizard’s reputation because, as in *Douglas Dynamics*, customers...found SnoWizard’s innovations in [infringing] machines. Thus, SnoWizard’s reputation as an innovator in this field was damaged by the patent infringement.”), *aff’d in part, rev’d in part, and vacated in part on other grounds*, 567 F. App’x 945 (Fed. Cir. 2014).

Infinity System. For instance, Goodman noted that the “big benefit[] to Goodman with [the ComfortNet system] is it elevates our positive brand image allowing us to obtain dealers we couldn’t previously approach.” PTX38 at GOODMAN-CAR00113002; PTX29 at GOODMAN-CAR00016504 (“goal” of project was to enhance “the image of Goodman products especially with high-end dealers”). As several courts have found, trading on the goodwill created by a competitor’s patented invention irreparably harms the patentee. *Muniauction, Inc. v. Thomson Corp.*, 502 F. Supp. 2d 477, 482-84 (W.D. Pa. 2007) (“Plaintiff received media attention for [its patented invention]. Defendant’s infringement has usurped that attention, and, in turn, done harm to plaintiff’s reputation as the leading innovator in this field. Recognition as the industry innovator is a tangible benefit afforded by a patent. Defendants have taken that benefit away from plaintiff. Such a harm is not compensable in damages, and is irreparable, making equitable relief appropriate.”), *rev’d in part, vacated in part on other grounds*, 532 F.3d 1318 (Fed. Cir. 2008).¹¹

2. Goodman is taking sales, market share, and business opportunities away from Carrier.

Carrier has also been irreparably harmed by lost sales, market share, and opportunities. Lost sales or market share can be shown by evidence that the patentee and infringer are competitors and that the infringer gained sales while the patentee lost sales. *Broadcom Corp.*,

¹¹ See also *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 2013 WL 3043668, at *2-3 (D. Nev. June 17, 2013) (finding irreparable harm based on loss of goodwill where patented technology previously distinguished patentee’s product from competitors); *Emory Univ. v. Nova Biogenetics, Inc.*, 2008 WL 2945476, at *4-5 (N.D. Ga. July 26, 2008) (“[W]here a company pioneers an invention in the marketplace, irreparable harm flows from a competitor’s attempts to usurp the pioneering company’s market position and goodwill....[T]he negative effects of the Plaintiff’s potential loss in goodwill, market share, and prestige are real, and would be difficult to quantify solely through monetary damages.”); *Trading Techs. Int’l, Inc. v. eSpeed, Inc.*, 2008 WL 4531371, at *2-4 (N.D. Ill. May 22, 2008) (finding irreparable harm where patentee had used patented feature to distinguish its product in the marketplace), *aff’d*, 595 F.3d 1340 (Fed. Cir. 2010).

732 F.3d at 1338 (affirming permanent injunction: “The district court determined that Broadcom and Emulex were competitors and that Broadcom lost market share while Emulex gained it—thus Broadcom established irreparable harm.”). There is no dispute that Goodman’s ComfortNet and Carrier’s Infinity directly compete. Ex. 2, Fisher Dep. Tr. 159:13-19; Ex. 1, Kaplan Dep. Tr. 50:4-8. Indeed, Goodman considers itself “Carrier’s biggest competition.” Ex. 2, Fisher Dep. Tr. 333:18-334:3.

The record also shows that Goodman used its infringement to increase its sales and market share at Carrier’s expense. Ex. 4, Blackburn Dep. Tr. 237:1-17; Meyers Trial Tr. 239:6-17. Until Goodman came on the market, Carrier’s Infinity System accounted for 100% of the communicating HVAC systems sold in the market. Ex. 1, Kaplan Dep. Tr. 258:8-259:16. Infinity sales grew rapidly until 2010, when sales decreased for the first time. PTX624. At the same time, Goodman’s high efficiency market share jumped when it launched its ComfortNet System, [REDACTED]

[REDACTED] PTX61 at GOODMAN-CAR00112493. Goodman accomplished ComfortNet’s success by advertising the patented self-configuration feature (Clark Trial Tr. 439:15-22; PTX15), telling customers they had “similar” features to Infinity (Ex. 6, PTX114), and bidding on projects they planned to “take for carrier” (Ex. 9, PTX289). Simply put (by Goodman’s Senior Product Manager), Goodman has been using the ComfortNet System “to gain high efficiency and high end market share.” Karl Trial Tr. 386:7-14. This evidence alone is sufficient to show irreparable harm. *Broadcom v. Emulex*, 732 F.3d at 1338.

The fact that Goodman is taking sales and market share from Carrier is no surprise. That has been Goodman’s intent all along with the ComfortNet System. Goodman witnesses and documents show that ComfortNet was “specifically designed to compete with Carrier’s Infinity

System” and that it “allows [Goodman] to get into [its competitor’s] backyard and take away high end business.” Clark Trial Tr. 456:9-16; PTX38 at GOODMAN-CAR00113002; PTX37 at GOODMAN-CAR00214333 (same); PTX8 at GOODMAN-CAR00112175-76 (similar); *see also* Ex. 2, Fisher Dep. Tr. 355:14-19 (agreeing that “one of [Goodman’s] goals with the launch of the ComfortNet was to take away high-end business from, including others, Carrier”).

To accomplish its goals, Goodman has used Carrier’s technology to recruit dealers who otherwise would not be competing against Carrier for high-end sales. Notably, one of Carrier’s motivations for developing its self-configuring technology was that it would expand the premium market by “extend[ing] the reach of premium products to contractors that are intimidated by the complexities of today’s systems.” PTX2 at CARR-GGI0018654. Goodman recognized it could use this technology to do the same. PTX29 at GOODMAN-CAR00016504 (ComfortNet System used “to drive sales of premium equipment boosting top line sales, profit, and the image of Goodman products especially with high-end dealers”); PTX8 at GOODMAN-CAR00112176 (“The key to the entire project is to streamline dealer installation obligations” because that “will drive sales of premium equipment, increase profits and allow enhance [sic] the Goodman and Amana high efficiency image.”).

Not only is Goodman competing with Carrier using Carrier’s patented technology, it is doing so based on price. Goodman tells distributors and installers that Infinity’s price “reflects” that Carrier’s technology is the “gold standard.” PTX38 at GOODMAN-CAR00113031; Ex. 2, Fisher Dep. Tr. 347:25-348:17. Meanwhile ComfortNet, according to Goodman, “mimics the long-term Goodman philosophy ‘we didn’t invent the technology -- we made it simple and affordable.’” PTX37 at GOODMAN-CAR00214335. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] The resulting downward pressure on Carrier's price is an irreparable harm. *Scholle Corp. v. Rapak LLC*, -- F. Supp. 2d --, 2014 WL 1287092, at *6 (N.D. Ill. Mar. 31, 2014) (finding likelihood of price erosion supported injunction where the infringer "sells the accused product at a lower price than [the patentee], which has exerted, and continues to exert, downward pressure on [the patentee's] price"). As the Federal Circuit has recognized, an infringer selling at low prices can change the market irreversibly, since "requiring purchasers to pay higher prices after years of paying lower prices to infringers is not a reliable business option." *Polymer Techs., Inc. v. Bridwell*, 103 F.3d 970, 976 (Fed. Cir. 1996).

C. Remedies at law such as damages will be inadequate for Carrier's injuries.

"The statutory right to exclude represents a tangential benefit associated with patent rights that cannot be quantified in monetary damages." *Becton Dickinson*, 2008 WL 4745882, at *4. Where, as here, the patentee and the infringer are direct competitors, the patentee's "right to exclude its rival from using its proprietary technology" is particularly valuable and unquantifiable. *Id.* Courts therefore routinely conclude that damages will be inadequate to compensate for a direct competitor's infringement.

For instance, the harm to Carrier's reputation simply cannot be compensated fully by damages. *See, e.g., Power Integrations*, 2014 WL 2960035, at *1-2 (granting injunction and finding that "the damage to Power's reputation as an innovator...cannot be fully compensated by payment of damages"). Indeed, right now Goodman's parent (Daikin) is making its first appearance on the mainstream residential market. According to a Daikin press release, "through this acquisition [of Goodman], Daikin will fully enter the ducted-style air-conditioning market for residential...applications in North America. Daikin's sales are expected to grow

substantially.” Ex. 15. Daikin is using Goodman’s infringing ComfortNet System to accomplish this, and touting Carrier’s patented self-configuration technology to prop-up Daikin as an innovator. Ex. 15 (press release touting that “Daikin is a market leader delivering high technology, environmentally-friendly and energy-saving solutions to global HVAC customers”); Ex. 16 (Daikin consumer brochure for ComfortNet modulating furnace, dated 9/14); Ex. 17 (Daikin website accessed October 13, 2014 touting auto-configuration of ComfortNet). Daikin’s entry using Carrier’s patented technology could irreversibly change the market.

And it is not possible to quantify the precise damage Goodman will inflict on Carrier in the future each time Goodman launches a new feature in its ComfortNet line of equipment, standing on the shoulders of Carrier’s game-changing, patented self-configuration technology, and without the complexity and uncertainty of attempting to innovate on its own. *See, e.g., Broadcom Corp. v. Qualcomm Inc.*, 543 F.3d 683, 703 (Fed. Cir. 2008) (“[D]ifficulty in estimating monetary damages [for violating patent rights] reinforces the inadequacy of a remedy at law.”); *SynQor, Inc v. Artesyn Techs., Inc.*, 2011 WL 238645, at *3 (E.D. Tex. Jan. 24, 2011) (“The loss associated with [name recognition, goodwill, and market share] is particularly difficult to quantify.”); *I-Flow Corp. v. Apex Med. Techs., Inc.*, 2010 WL 141402, at *1 (S.D. Cal. Jan. 8, 2010) (“[T]he injury to Plaintiff’s position [as the market leader] is difficult, if not impossible, to quantify.”).

Goodman has signaled clearly to the market that it will not stop infringing. In the last month, despite the jury verdict finding the ComfortNet System infringes valid claims of the ‘004 patent, Goodman launched a CTK04 product that uses the infringing self-configuration feature. Ex. 13 (describing newly launched CTK04 as “interchangeable” with the CTK03). And Goodman is also extending its infringement to its affiliated Daikin brand name. Ex. 14; Ex. 15.

The significant harms to Carrier therefore will continue, absent an injunction. *Robert Bosch LLC*, 659 F.3d at 1155 (damages are inadequate where “there is no reason to believe that [the infringer] will stop infringing, or that the irreparable harms resulting from its infringement will otherwise cease, absent an injunction”); *Sealant Sys. Int’l, Inc. v. TEK Global S.R.L.*, 2014 WL 1008183, at *26 (N.D. Cal. Mar. 7, 2014) (same).

D. Goodman cannot credibly claim hardship due to an injunction, whereas Carrier would face substantial hardship if an injunction is denied.

Goodman intentionally set out to compete with Carrier’s Infinity System, knowing Carrier had intellectual property covering the Infinity System. Clark Trial Tr. 489:4-491:7; *id.* at 759:16-760:22. Indeed, the jury found Goodman either actually knew or was willfully blind to the fact that its self-configuration feature infringed Carrier’s patent.¹² Goodman cannot credibly claim that equity should protect Goodman from the harms Goodman inflicted on itself by undertaking its infringement. *i4i Ltd. P’ship v. Microsoft Corp.*, 598 F.3d 831, 863 (Fed. Cir. 2010) (“The district court’s analysis properly ignored the expenses Microsoft incurred in creating the infringing products. Similarly irrelevant are the consequences to Microsoft of its infringement, such as the cost of redesigning the infringing products.”) (citation omitted), *aff’d*, 131 S. Ct. 2238 (2011). Denying an injunction here would validate Goodman’s disregard for patent rights. *Broadcom Corp. v. Emulex Corp.*, 732 F.3d at 1338 (“Patent property rights are especially difficult to protect with solely monetary relief because a calculating infringer may thus decide to risk a delayed payment to obtain use of valuable property without the owner’s permission.”).

¹² “Although a permanent injunction may never be utilized to punish an infringer, courts are not sympathetic to the hardship a party brings upon itself by undertaking knowing infringement.” *Hydrodynamic Indus. Co. v. Green Max Distribs., Inc.*, 2014 WL 2740368, at *5 (C.D. Cal. June 16, 2014).

Additionally, Goodman has argued throughout this case that the patented self-configuration feature is insignificant. *See, e.g.*, Kaplan Trial Tr. 1241:16-20 (opining that “there is no nexus between the auto-configuration feature and any alleged success of the product”). While Carrier disagrees at a technical level, Goodman should be held to its position. Thus, according to Goodman, there should be little hardship to Goodman and Goodman should not be heard to complain about losing the self-configuration feature. *Inventio AG*, 2011 WL 3480946, at *1-2 (“[The infringer] has taken the position throughout this litigation that the availability of the infringing system is, if not inconsequential, then of limited relevance to its market success. If that be true, then [the infringer] will suffer very little from an injunction.”).

In fact, Goodman already offers products without the self-configuration feature. In addition to its ComfortNet thermostats, Goodman sells legacy thermostats that do not have the self-configuration feature. Installers can manually configure ComfortNet indoor and outdoor units to work with Goodman’s legacy thermostats. *See, e.g.*, Goodman’s Motion for Summary Judgment, D.I. 252, at 34. An injunction would not prohibit Goodman from selling those legacy thermostats for use with manually-configured indoor and outdoor units. *Douglas Dynamics*, 717 F.3d at 1345 (“If indeed [the infringer] had a non-infringing alternative which it could easily deliver to the market, then the balance of hardships would suggest that [the infringer] should halt infringement and pursue a lawful course of market conduct.”).

Further diminishing any alleged hardship to Goodman from an injunction is that Goodman has argued that its ComfortNet equipment is a relatively insignificant product line compared to Goodman’s other products. Ex. 5, Clark Dep. Tr. 44:21-47:2 (testifying that ComfortNet is only a small portion of Goodman’s revenue); *id.* at 725:8-21 (ComfortNet equipment makes up only 4 or 5 percent of Goodman sales). As this District has recognized, the

hardship to a defendant from an injunction does not militate against an injunction when the infringing product is a small part of the defendant's business and the defendant's parent is a multi-billion dollar conglomerate (such as Daikin). *Callaway Golf Co. v. Acushnet Co.*, 585 F. Supp. 2d 600, 622 (D. Del. 2008), *aff'd in part and vacated in part on other grounds*, 576 F.3d 1331 (Fed. Cir. 2009).

While there is therefore no credible hardship to Goodman from an injunction, it would be manifestly unfair to require Carrier to compete with the game-changing technology it labored to invent. As the Federal Circuit has aptly observed, "requiring [a patentee] to compete against its own patented invention, with the resultant harms...places a substantial hardship on [the patentee]." *Robert Bosch*, 659 F.3d at 1156. That reasoning applies especially here, as Carrier's patented product is a substantial product for Carrier's business. Meyers Trial Tr. 224:7-225:12 (explaining that by 2007 Infinity had grown to account for 24% of business's gross margin).

E. The public's interest in protecting innovation outweighs any countervailing interest.

"The touchstone of the public interest factor is whether an injunction, both in scope and effect, strikes a workable balance between protecting the patentee's rights and protecting the public from the injunction's adverse effects." *i4i Ltd. P'ship*, 598 F.3d at 863. Carrier invests in R&D and patent protection, and the public interest strongly favors upholding those investments to encourage innovation. *Sanofi-Synthelabo v. Apotex, Inc.*, 470 F.3d 1368, 1383 (Fed. Cir. 2006) (noting that the "encouragement of investment-based risk is the fundamental purpose of the patent grant, and is based directly on the right to exclude"). As the Federal Circuit has held, "the public has a greater interest in acquiring new technology through the protections provided by the Patent Act than it has in buying 'cheaper knock-offs.'" *Douglas Dynamics*, 717 F.3d at

1346. There is no significant public interest in allowing Goodman to continue infringing Carrier's patent.

V. CONCLUSION

For these reasons, Carrier respectfully requests that the Court grant Carrier's motion for a permanent injunction and enter Carrier's proposed order.

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